

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/693,059
Source: IFW16
Date Processed by STIC: 6/12/06

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:51

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

3 <110> APPLICANT: Sirna Therapeutics, Inc.
 4 Haeberli, Peter
 5 McSwiggen, James
 6 Beigelman, Leonid
 7 Macejak, Dennis
 8 Zinnen, Shawn
 9 Pavco, Pamela
 10 Morrissey, David
 11 Fosnaugh, Kathy
 12 Jarison, Sharon
 13 Vaish, Nerendra
 14 Chowrira, Bharat
 15 Usman, Nassim
 16 James, Thompson
 17 Vargeese, Chandra
 18 Wang, Weimen
 19 Tongqian, Chen
 21 <120> TITLE OF INVENTION: RNA Interference Mediated Inhibition of Gene Expression
 Using
 22 Chemically Modified Short Interfering Nucleic Acid (siNA)
 24 <130> FILE REFERENCE: 03-465-A (400/136)
 26 <140> CURRENT APPLICATION NUMBER: US 10/693,059
 27 <141> CURRENT FILING DATE: 2003-10-23
 29 <150> PRIOR APPLICATION NUMBER: US 10/444,853
 30 <151> PRIOR FILING DATE: 2003-05-23
 32 <150> PRIOR APPLICATION NUMBER: US 10/652,791
 33 <151> PRIOR FILING DATE: 2003-08-29
 35 <150> PRIOR APPLICATION NUMBER: US 10/422,704
 36 <151> PRIOR FILING DATE: 2003-04-24
 38 <150> PRIOR APPLICATION NUMBER: US 10/417,012
 39 <151> PRIOR FILING DATE: 2003-04-16
 41 <150> PRIOR APPLICATION NUMBER: US 10/427,160
 42 <151> PRIOR FILING DATE: 2003-04-30
 44 <150> PRIOR APPLICATION NUMBER: PCT/US03/05346
 45 <151> PRIOR FILING DATE: 2003-02-20
 47 <150> PRIOR APPLICATION NUMBER: PCT/US03/05028
 48 <151> PRIOR FILING DATE: 2003-02-20
 50 <150> PRIOR APPLICATION NUMBER: US 60/358,580
 51 <151> PRIOR FILING DATE: 2002-02-20
 53 <150> PRIOR APPLICATION NUMBER: US 60/363,124
 54 <151> PRIOR FILING DATE: 2002-03-11
 56 <150> PRIOR APPLICATION NUMBER: US 60/386,782
 57 <151> PRIOR FILING DATE: 2002-06-06
 59 <150> PRIOR APPLICATION NUMBER: US 60/406,784

(ps.6)

RAW SEQUENCE LISTING

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:51

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

```

60 <151> PRIOR FILING DATE: 2002-08-29
62 <150> PRIOR APPLICATION NUMBER: US 60/408,378
63 <151> PRIOR FILING DATE: 2002-09-05
65 <150> PRIOR APPLICATION NUMBER: US 60/409,293
66 <151> PRIOR FILING DATE: 2002-09-09
68 <150> PRIOR APPLICATION NUMBER: US 60/440,129
69 <151> PRIOR FILING DATE: 2003-01-15
71 <150> PRIOR APPLICATION NUMBER: US 60/440,129
72 <151> PRIOR FILING DATE: 2002-05-17
74 <160> NUMBER OF SEQ ID NOS: 669
76 <170> SOFTWARE: PatentIn version 3.3
78 <210> SEQ ID NO: 1
79 <211> LENGTH: 21
80 <212> TYPE: RNA
81 <213> ORGANISM: Artificial Sequence
83 <220> FEATURE:
84 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
88 <220> FEATURE:
89 <221> NAME/KEY: misc_feature
90 <222> LOCATION: (1)..(1)
91 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
93 <220> FEATURE:
94 <221> NAME/KEY: misc_feature
95 <222> LOCATION: (21)..(21)
96 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
98 <400> SEQUENCE: 1
99 uaaccucgua cuggugccuc c 21
102 <210> SEQ ID NO: 2
103 <211> LENGTH: 21
104 <212> TYPE: RNA
105 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
111 <220> FEATURE:
112 <221> NAME/KEY: misc_feature
113 <222> LOCATION: (1)..(1)
114 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
117 <220> FEATURE:
118 <221> NAME/KEY: misc_feature
119 <222> LOCATION: (21)..(21)
120 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
122 <400> SEQUENCE: 2
123 ggaggcacca guacgagguu a 21
126 <210> SEQ ID NO: 3
127 <211> LENGTH: 21
128 <212> TYPE: RNA
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic

```

RAW SEQUENCE LISTING

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:51

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

```

135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (1)..(1)
138 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
140 <220> FEATURE:
141 <221> NAME/KEY: misc_feature
142 <222> LOCATION: (21)..(21)
143 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
146 <400> SEQUENCE: 3
147 aaacuccaag auctcccauc a 21
150 <210> SEQ ID NO: 4
151 <211> LENGTH: 21
152 <212> TYPE: RNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
159 <220> FEATURE:
160 <221> NAME/KEY: misc_feature
161 <222> LOCATION: (1)..(1)
162 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
164 <220> FEATURE:
165 <221> NAME/KEY: misc_feature
166 <222> LOCATION: (21)..(21)
167 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
169 <400> SEQUENCE: 4
170 ugauugggga ucuuggaguu u 21
173 <210> SEQ ID NO: 5
174 <211> LENGTH: 21
175 <212> TYPE: RNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
182 <220> FEATURE:
183 <221> NAME/KEY: misc_feature
184 <222> LOCATION: (1)..(1)
185 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
187 <220> FEATURE:
188 <221> NAME/KEY: misc_feature
189 <222> LOCATION: (21)..(21)
190 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
192 <400> SEQUENCE: 5
193 guuggagucu guaggacuug g 21
196 <210> SEQ ID NO: 6
197 <211> LENGTH: 21
198 <212> TYPE: RNA
199 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
205 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:51

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

```

206 <221> NAME/KEY: misc_feature
207 <222> LOCATION: (1)..(1)
208 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
210 <220> FEATURE:
211 <221> NAME/KEY: misc_feature
212 <222> LOCATION: (21)..(21)
213 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
215 <400> SEQUENCE: 6
216 ccaaguccua cagacuccaa c 21
219 <210> SEQ ID NO: 7
220 <211> LENGTH: 21
221 <212> TYPE: RNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
228 <220> FEATURE:
229 <221> NAME/KEY: misc_feature
230 <222> LOCATION: (1)..(1)
231 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
233 <220> FEATURE:
234 <221> NAME/KEY: misc_feature
235 <222> LOCATION: (21)..(21)
236 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
238 <400> SEQUENCE: 7
239 gcaaaaaccc ugugauuucc u 21
242 <210> SEQ ID NO: 8
243 <211> LENGTH: 21
244 <212> TYPE: RNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
251 <220> FEATURE:
252 <221> NAME/KEY: misc_feature
253 <222> LOCATION: (1)..(1)
254 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
256 <220> FEATURE:
257 <221> NAME/KEY: misc_feature
258 <222> LOCATION: (21)..(21)
259 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
261 <400> SEQUENCE: 8
262 aggaaucac agguuuuug c 21
265 <210> SEQ ID NO: 9
266 <211> LENGTH: 21
267 <212> TYPE: RNA
268 <213> ORGANISM: Artificial Sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
274 <220> FEATURE:
275 <221> NAME/KEY: misc_feature

```

RAW SEQUENCE LISTING

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:51

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

```

276 <222> LOCATION: (1)..(1)
277 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
279 <220> FEATURE:
280 <221> NAME/KEY: misc_feature
281 <222> LOCATION: (21)..(21)
282 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
284 <400> SEQUENCE: 9
285 uuggucagaa ucugcaguu c 21
288 <210> SEQ ID NO: 10
289 <211> LENGTH: 21
290 <212> TYPE: RNA
291 <213> ORGANISM: Artificial Sequence
293 <220> FEATURE:
294 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (1)..(1)
300 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
302 <220> FEATURE:
303 <221> NAME/KEY: misc_feature
304 <222> LOCATION: (21)..(21)
305 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
307 <400> SEQUENCE: 10
308 gaacugccag aaacugacca a 21
311 <210> SEQ ID NO: 11
312 <211> LENGTH: 21
313 <212> TYPE: RNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
320 <220> FEATURE:
321 <221> NAME/KEY: misc_feature
322 <222> LOCATION: (1)..(1)
323 <223> OTHER INFORMATION: 5'-3 attached terminal deoxyabasic moiety
325 <220> FEATURE:
326 <221> NAME/KEY: misc_feature
327 <222> LOCATION: (21)..(21)
328 <223> OTHER INFORMATION: 3'-3 attached terminal deoxyabasic moiety
330 <400> SEQUENCE: 11
331 gguccuuucu uggaucaacc c 21
334 <210> SEQ ID NO: 12
335 <211> LENGTH: 21
336 <212> TYPE: RNA
337 <213> ORGANISM: Artificial Sequence
339 <220> FEATURE:
340 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
343 <220> FEATURE:
344 <221> NAME/KEY: misc_feature
345 <222> LOCATION: (1)..(1)

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/693,059

DATE: 06/12/2006
TIME: 15:06:52

Input Set : E:\03-465-A SeqListing.txt
Output Set: N:\CRF4\06122006\J693059.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:323; N Pos. 20,21
Seq#:324; N Pos. 20,21
Seq#:325; N Pos. 20,21
Seq#:326; N Pos. 20,21
Seq#:353; N Pos. 20,21
Seq#:354; N Pos. 20,21
Seq#:355; N Pos. 20,21
Seq#:356; N Pos. 20,21
Seq#:357; N Pos. 20,21
Seq#:358; N Pos. 20,21
Seq#:359; N Pos. 20,21
Seq#:360; N Pos. 20,21
Seq#:361; N Pos. 20,21
Seq#:362; N Pos. 20,21
Seq#:363; N Pos. 20,21
Seq#:364; N Pos. 20,21
Seq#:365; N Pos. 20,21
Seq#:368; N Pos. 20,21
Seq#:369; N Pos. 20,21
Seq#:370; N Pos. 20,21
Seq#:371; N Pos. 20,21
Seq#:513; Xaa Pos. 1,5
Seq#:521; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:522; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:523; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:524; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:525; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:526; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:527; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:528; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:529; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
Seq#:530; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:521; Line(s) 15065
Seq#:523; Line(s) 15124
Seq#:525; Line(s) 15178

VERIFICATION SUMMARY

DATE: 06/12/2006

PATENT APPLICATION: US/10/693,059

TIME: 15:06:52

Input Set : E:\03-465-A SeqListing.txt

Output Set: N:\CRF4\06122006\J693059.raw

L:6569 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:323 after pos.:0
L:6591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:324 after pos.:0
L:6614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:325 after pos.:0
L:6637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:326 after pos.:0
L:7876 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:353 after pos.:0
L:7914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:354 after pos.:0
L:7947 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:355 after pos.:0
L:7980 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:356 after pos.:0
L:8029 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:357 after pos.:0
L:8077 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:358 after pos.:0
L:8121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:359 after pos.:0
L:8164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:360 after pos.:0
L:8222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:361 after pos.:0
L:8280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:362 after pos.:0
L:8328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:363 after pos.:0
L:8376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:364 after pos.:0
L:8424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:365 after pos.:0
L:8518 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:368 after pos.:0
L:8557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:369 after pos.:0
L:8605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:370 after pos.:0
L:8649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:371 after pos.:0
L:14945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:513 after pos.:0
L:15024 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (517) SEQUENCE:
L:15030 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (518) SEQUENCE:
L:15036 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (519) SEQUENCE:
L:15041 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (520) SEQUENCE:
L:15073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:521 after pos.:0
L:15110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:522 after pos.:0
L:15137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:523 after pos.:0
L:15164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:524 after pos.:0
L:15198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:525 after pos.:0
L:15230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:526 after pos.:0
L:15263 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:527 after pos.:0
L:15296 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:528 after pos.:0
L:15328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:529 after pos.:0
L:15361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:530 after pos.:0
L:15367 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (531) SEQUENCE: